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OUTLINE OF PRESENT APPLICATIONS OF PUNCHED-CARD METHOD

1. The punched-card method has been continuously employed in CIA since February 1947. The method was first applied to the needs of indexing intelligence information and to other intelligence problems and was later extended to accounting and administrative record keeping problems. During this period, rapid progress was made in development and installation of procedures and the training of operating personnel. Definite continuous advantages and savings are being realized from the established procedures and further advantages will accrue as the method is extended to other work as described in Tabs B and C of this report. A brief history of the present applications and resultant advantages and savings is contained in the following paragraphs.

2. Indexes of Intelligence Information.

a. In 1946 when the operational requirements of the Agency were being determined, it was realized that the vast amount of intelligence data to be received must be indexed by a method which would provide a fast and accurate means of classifying, indexing and locating specific data upon request. Because speed and accuracy are essential in satisfying an intelligence request, the usual methods and procedures of indexing, finding, correlating and listing the information available for dissemination were found to be inadequate when measured by CIA requirements and standards. Therefore, a method and a procedure was required for speedily recording the pertinent data in a medium which could be mechanically filed, selected, correlated and listed with speed and accuracy.

b. After thorough investigation of numerous possible solutions, the punched-card method was selected because of its flexibility, speed and accuracy.

c. The task of adapting the method to the Agency's needs was started in the latter part of 1946. The procedures for the Contact Register of non-governmental sources of intelligence information, now maintained by the Contact Division/00, was developed first. The necessary punched-card equipment was delivered in February 1947, and the procedures were placed in effect.

d. Similarly, procedures for indexing documentary, graphic, biographical and industrial intelligence data were in the process of development and were made effective during 1947.

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e. A special system was developed to provide a means of transmitting and reproducing abstracts of indexed documents upon request. The system includes the use of special facsimile equipment designed to automatically feed selected index cards, scan the abstracts of documents written thereon, transmit the scanned data to receivers located in the Library and other offices of CIA. The facsimile machines were developed and produced to meet specifications provided by the Agency. This system is now known as the Intello-fax System.

f. Punched-card procedures were developed for the purpose of producing gazetteers of place names for the NIS program. To date gazetteers for 37 countries and 296,689 place names have been completed. This work was started in May 1948.

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g. An index of the published [redacted] was established on a punched-card basis in May 1947, and is now the only complete index to the pamphlets published after April 1947.

h. Separate installations of machines were made in the Communications Division/OSO, and the Special Research Center. The procedures and results obtained by these two installations are of a classified nature.

### 3. Accounting and Administrative Record Keeping Problems.

a. The punched-card procedures and the manner of using the machines for intelligence problems are unique. The most universal and best known applications of the punched-card method are found in the field of accounting and administrative record keeping. The advantages to be derived from accounting applications were recognized and, in the fall of 1947, the Administrative Projects Branch was established in the present Machine Methods Division, OCD, to perform accounting and administrative records work on a punched-card basis for the Administrative Staff of CIA. The work of drafting procedures for accounting and related administrative record keeping jobs were accomplished as rapidly as possible with the limited number of available machine personnel primarily engaged in establishing and maintaining the intelligence indexes.

b. At the present time, the following jobs are being performed on a current basis:

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- (1) Personnel Statistical Records;
- (2) Personnel Qualification Records;
- (3) Personnel Strength Reporting;
- (4) Applicant Application Records;
- (5) Applicant Qualification Records;
- (6) Physical Inventory and Reconciliation of Warehouse Stock for Special Support Staff;
- (7) Personnel Position Control, OCD;
- (8) Book and Periodical Subscription Purchase Record, CIA Library;
- (9) Machine Utilization Records.

The above jobs listed above are only the beginning of a program for applying punched-card method to the Agency's accounting and record keeping problems. Additional applications are outlined in Tabs B and C.

4. Advantages and Savings Realized.

a. Since January 1947, the date of the first machine installation, the use of the punched-card method has been tested, altered, developed and expanded. The procedures in effect for the various intelligence registers are continuously being studied and revised to produce the desired results more expeditiously and efficiently. New procedures are developed to meet new or changed intelligence requirements. In some cases plans have been held in abeyance awaiting the development and installation of special equipment.

b. A few of the advantages which have been realized to date are listed below:

(1) The several types of index files now contain millions of items of intelligence information and those items are automatically and quickly located and produced upon request. To have accomplished the ends desired under a manual or semi-manual method would have been impossible. The value to CIA of mechanized index files of intelligence information cannot be over estimated.

(2) The procedure established for processing documents received in the CIA Library for the preparation of index cards

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and the related procedures for control, allocation and distribution of documents, have resulted in estimated annual savings of \$200,000. These annual savings alone more than offset the present annual cost of all punched-card equipment and supplies.

(3) Gazetteers of place names covering 37 areas and more than 296,000 names had been produced as of June 1950 and are continuing to be produced at the rate of 12,000 names a month. The production of gazetteers is the only one of several phases of the NIS program which is current with the established program schedule. One thousand copies of each gazetteer are published and it has been estimated that the present publication cost is one-third of the cost of publishing the gazetteers prior to the application of the punched-card method.

(4) The book and periodical subscription purchase record maintained by the CIA Library was placed on a punched-card basis in 1949. As a result of the information and control provided by the punched-card method, the cost of the annual periodical subscriptions was reduced by \$1,200. Based on information furnished in monthly punched-card reports, additional annual savings are being realized by maintaining the number of periodical subscriptions at a minimum.

(5) The application of the punched-card method to CIA Personnel Records and the Applicant File has furnished the Personnel Division with information otherwise unobtainable and has saved a great many man-days.

(6) The work performed for the Special Support Staff in applying the punched-card method to accounting and reconciliation requirements of the recent physical inventory of stock in the [ ] resulted in a substantial saving of SSS accounting personnel time. The procedures used permitted the establishment of controls which would not have been feasible under a manual operation.

c. The advantages listed above, and other intangible benefits and savings, will continue and will be increased through:

(1) The continuous study of existing procedures to determine means of expediting the flow and processing of the source

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material and of increasing the efficiency of manual and machine operations.

(2) The development and exploitation of new machines and machine methods.

Provision has been made for such development and research through the use of Tabulation Project Planners in each Division using the punched-card method.

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